

AMENDMENTS TO THE CLAIMS:

1. (Previously presented) A positive active material comprising:
base particles able to dope and release lithium ions; and
at least one element selected from the group consisting of Gd, Ce and Yb on at least part of a part of the base particles which is able to come into contact with an electrolyte,
wherein said at least one element is formed on a surface of said base particles, and is not incorporated in said base particles.
- 2-3. (Canceled)
4. (Previously presented) The positive active material of claim 1, wherein the base particles comprise LiCoO_2 .
5. (Previously presented) The positive active material of claim 1, wherein the base particles comprise a lithium-transition metal composite oxide having an $\alpha\text{-NaFeO}_2$ type crystal structure and represented by the composite formula $\text{Li}_x\text{Mn}_a\text{Ni}_b\text{Co}_c\text{O}_d$ (wherein $0 \leq x \leq 1.3$, $a+b+c=1$, $|a-b| \leq 0.03$, $0 \leq c < 1$, and $1.7 \leq d \leq 2.3$).
6. (Withdrawn) A process for producing the positive active material of claim 1, comprising:
producing base particles which contain lithium and are able to dope and release lithium ions; and
imparting said at least one element to the base particles such that the element can be present on at least part of that part of the base particles which is able to come into contact with an electrolyte.
7. (Withdrawn) A process for producing the positive active material of claim 1, comprising:
producing base particles which contain lithium and are able to dope and release lithium ions; and

mixing a solution which contains the base particles and the pH of which has been regulated by the addition of a lithium ion-containing alkalinity regulator with a deposition reaction liquid containing said at least one element to thereby deposit a compound containing said at least one element on the base particles in the solution and impart said at least one element to the base particles so that said at least one element can be present on at least part of that part of the base particles which is able to come into contact with an electrolyte.

8. (Withdrawn) The process for producing a positive active material of claim 7, wherein the solution has been regulated so as to have a pH of 11-12 by the addition of the lithium ion-containing alkalinity regulator.

9-12. (Canceled)

13. (Previously presented) A positive electrode for lithium secondary batteries, comprising: the positive active material of claim 1.

14. (Previously presented) A lithium secondary battery, comprising:
the positive electrode for lithium secondary batteries of claim 13;
a negative electrode employing a negative-electrode material able to dope and undope lithium ions; and
a non-aqueous electrolyte.

15. (Currently amended) The lithium secondary battery of claim 14, wherein the lithium secondary battery ~~which~~ is for use at an upper-limit voltage of 4.3 V or greater.

16. (Canceled)

17. (Previously presented) The positive active material of claim 24, wherein the base particles comprise LiCoO_2 .

18. (Previously presented) The positive active material of claim 24, wherein the base particles comprise a lithium-transition metal composite oxide having an α -NaFeO₂ type crystal structure and represented by the composite formula $\text{Li}_x\text{Mn}_a\text{Ni}_b\text{Co}_c\text{O}_d$ (wherein $0 \leq x \leq 1.3$, $a+b+c=1$, $|a-b| \leq 0.03$, $0 \leq c < 1$, and $1.7 \leq d \leq 2.3$).

19. (Withdrawn) A process for producing the positive active material claim 24, comprising:
producing base particles which contain lithium and are able to dope and release lithium ions; and

imparting said at least one element to the base particles such that the element can be present on at least part of that part of the base particles which is able to come into contact with an electrolyte.

20. (Withdrawn) A process for producing the positive active material of claim 24, comprising:

producing base particles which contain lithium and are able to dope and release lithium ions; and

mixing a solution which comprises the base particles and the pH of which has been regulated by the addition of a lithium ion-containing alkalinity regulator with a deposition reaction liquid comprising said at least one element to thereby deposit a compound comprising said at least one element on the base particles in the solution and impart said at least one element to the base particles so that said at least one can be present on at least part of that part of the base particles which is able to come into contact with an electrolyte.

21. (Previously presented) The positive active material of claim 1, wherein a weight percent of said at least one element in terms of oxide is in a range from 0.05% to 4% of a total weight of said base particles and said at least one element in terms of oxide.

22-23. (Canceled)

24. (Previously presented) A positive active material, comprising:
base particles able to dope and release lithium ions; and
at least one element selected from the group consisting of Gd, Y, La, Ce and Yb formed
on a surface of said base particles and not incorporated in said base particles.
25. (Previously presented) A positive electrode for lithium secondary batteries, comprising:
the positive active material of claim 24.
26. (Previously presented) A lithium secondary battery, comprising:
the positive electrode for lithium secondary batteries of claim 25;
a negative electrode employing a negative-electrode material able to dope and undope
lithium ions; and
a non-aqueous electrolyte.
27. (Currently amended) The lithium secondary battery of claim 26, wherein the lithium
secondary battery ~~which~~ is for use at an upper-limit voltage of 4.3 V or greater.
28. (Previously presented) The positive active material of claim 24, wherein a weight percent
of said at least one element in terms of oxide is in a range from 0.05% to 4% of a total weight of
said base particles and said at least one element in terms of oxide.
29. (Previously presented) A positive active material, comprising:
base particles able to dope and release lithium ions; and
at least one element selected from the group consisting of Gd, Y, Ce and Yb formed on a
surface of said base particles and not incorporated in said base particles.